N005

Human Factors and Respiratory Protective Devices in the Workplace

Robert Rajan-Sithamparanadarajah

Health and Safety Executive,
Magdalen House, Trinity Road, Bootle L20 3QZ, United Kingdom (UK).
Tel: +44 151 951 3318 Fax: +44 151 951 3595
e-mail: bob.rajan@hse.gsi.gov.uk

ABSTRACT

Respiratory protective devices (RPDs) play an important role in managing health risks due to exposure to substances hazardous to health present in workplaces. The United Kingdom (UK) industry spends more than £250 million per year on procurement, use and maintenance of RPDs.

UK health and safety legislation requires that RPD used in the workplace shall be adequate and suitable for the purpose. The suitability requirement stipulates that the RPD used is "CE" marked. Before an RPD is "CE" marked, it should meet the "minimum health and safety requirements" described in the European Commission Directive – Personal Protective Equipment Laws Directive 89/686/EEC as amended. The assessment under the minimum health and safety requirements will include human factor issues such as face size measurements of test subjects, effects of work rate on inward leakages and so on. In general, RPD conforming to specifications in a relevant CEN (European) standard satisfies the minimum health and safety requirements. CEN standards do not deal with adequacy and suitability.

HSE, as a regulator, has to take account of human factor issues when making regulations relevant to RPD selection and use. In addition, HSE takes account of RPD related human factor issues during research and workplace enforcement activities.

This paper will use examples such as CEN standards, law making, research, and workplace use of RPD to illustrate the importance of human factor issues for effective use of RPD in the workplace.